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| 10/034,177 | 12/28/2001 | Myoung Jun Lee | 2013-3-06 | 1566 |

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EXAMINER

HOANG, TU BA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3742

DATE MAILED: 09/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,177

Applicant(s)

LEE, MYOUNG JUN

Examiner

Tu Ba Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-26 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

It is suggested that the phrase " , which are hereby incorporated by reference" recited at lines 3-4 of the first page (i.e., page numbered 2) to be deleted.

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. A copy for the Korean Utility Laid-open Publication No. 97-64561 (noted on page 2) is requested.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitations "the AC voltage" in line 3, "the nylon thermistor" and "the temperature detecting terminal" in line 8, and "the driving current" in line 12. There are insufficient antecedent bases for these limitations in the claim or from the preceding claim 1.

In claim 11, there are insufficient antecedent bases for "the temperature controller" recited at line 1, "the neutral terminal" recited at line 2, "the driving current" recited at line 3, "the terminal" recited at lines 3-4 (i.e., which one), "the heating resistor" recited at line 5, "the temperature detecting cycle" recited at line 9, "the detected temperature voltage" recited at lines 9-10, "the next temperature detecting cycle" recited at line 10, "the other side of the shielding coil" recited at line 21 (such other side must also be clearly defined), and "the applied current" recited at line 30 in the claim or from the preceding claim. The term "an" appeared before "SCR" recited at lines 2 and 30

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should be changed to "a" and the term "SCR" should also be changed to "silicon controlled rectifier". It is appeared that claim 11 should be dependent from claim 10 instead. Clarification is needed.

In claim 12, the recitation of "a driving current connection terminal" at lines 16-17 renders the claim indefinite because it is unclear whether this terminal the same as the earlier recited terminal (at line 10). Thus, the term "a" recited at line 16 must be changed to "said" otherwise structural and operational relationships between such two terminals are needed.

In claim 13, there is insufficient antecedent basis for "the first electrode" recited at lines 1-2 in the claim or from the preceding claim 1, 9, or 11.

Claims 14-26 are indefinite for being dependent from claim 11 because most of the later recitations are either appeared inconstant or not further related and limited the earlier recitations in the preceding claim 1, or 9, or 11.

It is appeared that all of claims 13-26 were intended to be dependent from claim 12 instead of claim 11. All of these claims must be carefully reviewed and clarification of their dependencies is needed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-9, 12, 14-22, and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kishimoto et al (US 4,503,322). Kishimoto et al shows a thermo-sensitive heater (Figure 2) comprising a tubular coating layer 5 with electric insulating characteristics (column 2, line 12, i.e., insulating housing), a tubular thermistor 9 disposed in the coating layer 5 (column 2, lines 14-16, i.e., the external function layer 9 can comprise a heat generating layer having a self-controllability for temperature), a cord-shaped heating element 7 disposed in the thermistor 9 (column 2, lines 14-15, i.e., the internal function layer 7 can also be a heat generating layer), a center core structure 1 disposed in the form of a wire (column 2, line 13, i.e., core thread) in the cord-shaped heating element 7, a shielding coil 10 disposed in the form of a winding wire around the outer surface of the thermistor 9 (as shown in Figure 2 or 3) and connected to a current supplying terminal (column 3, lines 64-67), a first heating coil 8 (column 3, lines 64-65, i.e., supplied by heating current) disposed in the form of a winding wire around the outer surface of the cord-shaped heating element 7 and contacting the inner surface of the thermistor 9, and a second heating coil 6 disposed in the form of a winding wire around the center core structure 1 and contacting the inner surface of the cord-shaped heating element 7 (also see column 1, lines 26-30 and claim 10), wherein the tubular coating layer 5 comprises polyvinyl chloride and the thermistor 9 comprises nylon resin, (column 2, lines 54-57, i.e., for plastic thermistor), the outer surface of the cord-shaped heating element 7 comprises silicon rubber (column 2, lines 32-35 and 60-61, i.e., nylon

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composition or polyethylene), and the center core structure 1 comprises polyester filament yarn or glass fiber wire (column 2, lines 67-68).

It is noted that with regard to the extrusion forming process for the thermistor as recited in claim 3, the compressing process for the coil as recited in claims 6, 9, and 14-18, such methods or processes of forming the thermistor and the coil is not germane to the issue of patentability of the claimed thermo-sensitive heater or the thermistor or the coil itself. Therefore, these limitations have not been given any patentable weight.

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-11, 13 and 23-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Ba Hoang whose telephone number is (703) 308-3303. The examiner can normally be reached on Mon-Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on (703) 308-1327. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9301.

tbh
September 15, 2003



Tu Ba Hoang
Primary Examiner